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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/817,123
Filing Date: March 27, 2001
Appellant(s): HAZAMA, KATSUKI

Larry J. Hume
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 26th, 2006 appealing from the Office action mailed November 2nd 2005

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

USP 5,991,693	Zalewski	11-1999
USP 5,853,327	Gilboa	12-1998
USP 5,526,306	Hikawa et al	6-1996
USP 4,764,666	Bergeron	8-1988
GB 213943 A1	Blenkinshop, Philip Thomas et al.	3-1983
USP 5,741,184	Takemoto	4-1998
USP 4,857,893	Carroll	8-1989
USP 5,099,226	Andrews	3-1992

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims **1, 6, 7, 10, 11, 15,** and **39-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilboa (US 5,853,327) in view of Zalewski (US 5,991,693) in further view of Hikawa et al (US 5,526,306).

Claims 1, 6, 7, 10, 11: Gilboa teaches a computerized game including a game board (Elm 8) comprising a first control device for transmitting and receiving data

required in terms of advancement in a game, a plurality of game pieces (Elm 10) each including data carrier having control means for transmitting and driving electric power (Col 11:22-32) and the transferring data between the game pieces and the body (Col 12:4-11) where the coil resonance system described provides the power to activate the game piece's transmission means through a query and the data transferred consists of the unique identification broadcast in reply to the body by the piece serves as the transferring of data as so claimed. This feature is interpreted as implicitly providing the "means for notifying the first control device the received driving power has reached a predetermined quantity of electrical power" where in the reply is transmitted by the game piece and received by the control device resultant of "received driving power has reached a predetermined quantity of electrical power" in the coil game piece as so claimed.

Gilboa however is silent regarding the inclusion of a control unit with associated memory in his game pieces for the execution of processes/programs or the storage of the identifier in this memory.

In an analogous patent Zalewski teaches the inclusion of a control unit and associated memory (Col 11:10-54) with game pieces (bodies) for the execution of programs/processes (Col 12:3-27) along with the use of an identification or control signal (Col 11:55-61) but is silent regarding the use of a coil resonance system or the locating of the game pieces on a game body. It would have been obvious to one of ordinary skill in the art at the time of invention to have incorporated the control unit with associated memory of Zalewski with the board game of Gilboa in order to allow the

game pieces to independently determine their position through triangulation (and thereby add a 3rd dimension for position determination), run programs or processes external to the device or alternatively to allow the individual identification of each piece to be readily changed.

Alternatively it would have been obvious to one of ordinary skill in the art at the at the time of invention to have incorporated the coil resonance system of Gilboa as taught above with the control unit and associated memory Zalewski in order to provide a power means which would not require replacement.

The invention of Gilboa and Zalewski however is silent on whether binary or multi-state memory (wherein multi-state is understood to encompass at least 3 states) is used with their game pieces. However Hikawa et al teaches the use of multi-state memory in a method for memory device fabrication (Col 13:47 –54 & Abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize the multi-state memory of Hikawa et al in the game of Gilboa/Zalewski in order to conserve space and/or increase the amount of storage memory available to each piece (See Hikawa Abstract).

Claim 15: In addition to the above stated, the detection and response to the determination of the positional relationship as claimed is shown in figure 4-6 of Zalewski

Claims 39-40: In addition to the above stated Gilboa teaches the inclusion of a coil resonance system incorporating an excitation signal transmission followed by a

cessation of signal transmission (Figure 3). For further clarification GB 2103943 incorporated by reference Gilboa (Col 11:25-27) teaches emitting a first pulse then on the receipt or lack of receipt of notification that the received driving electrical power has reached a predetermined quantity of electrical power interrupting the transmission of radio wave signal for a predetermined period of time (*GB 2103943* Fig 3).

Claims **8, 9,** and **12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilboa (US 5,853,327) in view of Zalewski (US 5,991,693) in further view of Hikawa et al (US 5,526,306) and yet further in view of Bergeron (US 4,764,666).

The invention of Gilboa/Zalewski/Hikawa is silent regarding the use of contact terminals and the storing of information identifying information.

Bergeron teaches in an on-line wagering system with programmable game entry cards that teaches the use of a contact terminal for transmitting and receiving via touch (Col 13:39-49) or electromagnetic waves (13:45-49) and the inclusion of player identifying information on the device including bank account numbers (3:25-38) as well as other player specific information for identifying the individual (7:45-55).

It would have been obvious to one of ordinary skill at the time of invention to have incorporated the invention of Bergeron with the invention of Gilboa/Zalewski/Hikawa as disclosed above in order to provide a system with increased security from fraudulent use, reduce electromagnetic interference generated through the contact terminals, or provide a method to locate the owner of lost game pieces.

Regarding at least claim **14** as best understood, the invention of Gilboa/Zalewski/Hikawa includes the ability to store information in a multi-value memory regarding the object moving said object. Wherein the "object" as presented is interpreted as a person.

(10) Response to Argument

The Appellant's arguments as presented on pages 6 through 16 of the their brief will attempt to suggest legal error on rejections as set forth by the Examiner on multiple grounds commonly based on the interpretation of two main claim features. For the sake of clarity and in absence of equivalent analysis set forth by the Appellant the Examiner will commence this response through first setting forth the basis for the interpretation of this relevant claimed feature argued and then redress the Appellant's arguments premised on these core features reflective of the order as so presented by the Appellant.

(A) The appellant challenges the Examiner's establishment of a prima *facie case* for Unpatentability of claims 1, 6-7, 10-11, 15 and 39-40 over Gilboa, Zalewski, and Hikawa et al based on:

(1) The Appellant's alleges that the prior art as applied does not teach all of the claim limitation (Appellant's brief pages 6-13).

The Appellant's arguments are premised on a claim feature represented in pending claim 1 as

"...means for notifying the first control device that the received driving electrical power has reached a predetermined quantity of electrical power;..."

and in similar fashion in claim 6 as

"...means for providing a notification that the received driving electrical power has reached a predetermined quantity of electrical power;..."

as not being fairly taught by the Examiner's rejections of record.

The Examiner will demonstrate through a review of the claim construction, the relevant consideration of equivalent materials and acts as set forth by the Appellant's specification with regards to means-plus function limitations, and the derived sheer scope of the presented claim limitation resultant thereof that the rejection and art as applied to the Appellant's claim limitation has been applied in manner that is reasonable, consistent, and reflective of claim interpretation as set forth by the MPEP.

Means-plus-function Language Interpretation

With regards to the "means for notifying" or alternatively stated "means for providing notification", the Appellant's brief sets forth three citations in the third full paragraph of page 4 of the Appellant's specification to support for mean-plus-function

language as set forth in MPEP 2181. These citations of the specification include page 13, lines 22-29; page 14 lines 5 through 14 and figure 2 of the drawings. The most descriptive of these citations found on page 14 of the Appellants specification sets forth the following:

> "The power generation notifying unit 4 detects that the operation power generating unit 3 stores the capacitor with a predetermined quantity of electric power, and notifies the reader of this effect. The power generation notifying unit 4 outputs a completion-of-charging signal S1 to the antenna circuit 2, and notifies the reader of it by transmitting the radio waves 21 from the antenna circuit 2. A communication frequency of the radio waves used herein are, for example, 125kHz band, 13-56 MHz band and other microwave band. "

Based on the above, the following items are noted as being relevant by the Examiner in determining equivalency for the pending rejections:

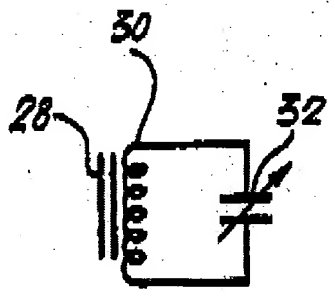
► First, there is no definitive or exemplary quantification of "predetermined charge amount" presented by the Appellant's specification.

► Second, in response to the determination that a predetermined quantity of electrical power has been achieved by the capacitor, the claimed system creates a radio signal to the reader to indicate the occurrence. Bearing in mind that this predetermined charge serves as the power source for sending the radio wave notification (Appellant's specification pages 13-14), this establishes the only possible limiting criteria as to what one of ordinary skill could ascertain the a predetermined quantity of electrical power to be. Specifically the predetermined quantity of electrical power must be at very minimum enough to power the transmission of radio waves from an antenna circuit. Accordingly a predetermined quantity of electrical power could constitute any amount of electrical power and more specifically any amount of electrical power above this transmission threshold would reflect a predetermined quantity of electrical power. Further, the sheer

breadth of the Appellant's claims do not limit the response to only occurring at a "predetermined quantity" but instead are of such a broadness that they include ranges of predetermined values since each range would by definition contain a multitude of "predetermined quantities" in accordance with MPEP 2111. By way of example, if the capacitor voltage of a LC circuit reached the value of 1.5 volts during the charge cycle (current signal) of Gilboa then 1.5v, would be the equivalent predetermined limit and although this would serve as a predetermined a quantity of electrical charge any value from the transmission threshold through the actual achieved capacitor value (located at approximately 1.5v) would also serve equally as a predefined quantity of electrical power because it would enable the transmission of detectable radio waves from an antenna circuit.

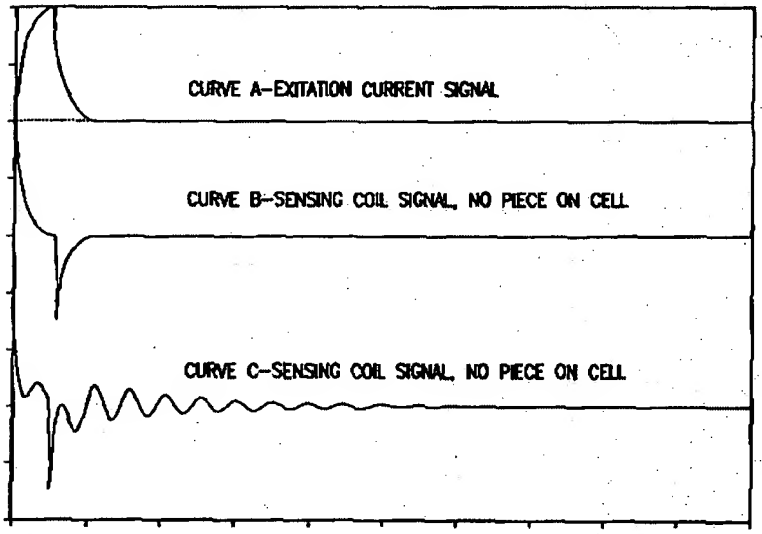
The correlation of the prior art to the limitations defined above

As recited in the rejection above the Gilboa reference teaches this feature through the use of a resonant circuit wherein upon the receipt of driving electrical power from an outside radio emission source the resonant circuit of Gilboa stores the power in a capacitor and utilizes the stored power to generate a response signal. The Blenkinshop reference incorporated by reference into the Gilboa patent teaches such a simplified LC circuit diagram for reference in Figure 2A. Gilboa further describes the process as,



Blenkinshop Figure 2A

"Thus, according to an alternative embodiment of the present invention, a capacitor replaces transceiver circuit 250 and battery 260. The capacitor and coil 240 form a resonance circuit, such as the resonance circuit described in British Patent 2103943, incorporated herein by reference. According to this embodiment, the excitation (query) signal, which is preferably characterized by an abrupt change in electromagnetic flux, activates the resonance circuit which, thereby, resonates at its resonance frequency. Thus, the frequency of the answer signal is determined by the frequency of the resonance circuit." (Gilboa Column 11:22-32).



Gilboa Figure 12

The circuit of Gilboa responds only to received signals since without a battery or other type of power source it is incapable of generating it's own energy without the received excitation signal.

With reflection on Appellant argued limitations (repeated below for reference), the rejection of record addresses these features with the resonant system of Gilboa wherein the system as taught by Gilboa and Blenkinshop with the former incorporated by

reference into Gilboa teaches transmission of a signal responsive to the receipt of a predetermined amount of electrical power. Wherein the Examiner has relied on "implicit disclosure" to support the equivocation of the Appellant's claimed means listed below to the resonant system of Gilboa for providing the same function as provided for by the claim language presented and relevant disclosure of the specification with regards to means plus function type language.

"...means for notifying the first control device that the received driving electrical power has reached a predetermined quantity of electrical power;..." (Pending claim 1)

"...means for providing a notification that the received driving electrical power has reached a predetermined quantity of electrical power;..." (Pending claim 6)

Commencing on page 8 of the Appellant's brief, the Appellant erroneously suggest that the Examiner has failed to establish a prima facie case of obvious. To support the Appellant's accusation, the Appellant provides the following specific arguments respectively rebutted by the Examiner below. As the Appellant's broader arguments directed the establishment of a prima facie case of obviousness, improper hindsight, implicit disclosure, and motivation to combine are founded on these specific arguments they are considered rebutted in the Examiner's redress of the specific arguments.

Appellant's specific arguments:

"Applicants point out that the "response" by Gilboa is purely in the form of a resonance signal formed by the LC circuit. As such, this circuit is going to respond to a variety of different levels of received electrical power. In other words, each piece is going to respond all the time at some point, irrespective of the quantity of electrical power. So the fact that you get a "response" says nothing about the amount of electrical power that has been stored/received." (Appellant's brief paragraph bridging pages 9 and 10)

This argument falls on at least three points.

►First, the Appellant's claim does not preclude the claimed apparatus from responding to a plurality of received power levels and instead only sets forth the transmission of a response once a predetermined power level has been reached.

►On the second point the Appellant's classification of Gilboa's circuit presents a contradiction in so much that they propose that the receipt of response powered through transmitted energy says nothing regarding the amount of received power.

This contradiction is the equivalent to stating, If a battery powered flashlight produces light using it's battery for a power source, that the production of light says nothing about whether or not the battery is depleted.

This is plainly not the truth as without enough power stored in the battery to power the light source it would be impossible to power the light and the battery therefore could not be dead. This same logic flows from the invention of Gilboa wherein the transmission of a signal from the LC circuit of Gilboa necessitates that there is enough power stored in the capacitor of the LC circuit to transmit a signal detectable by the apparatus of Gilboa. Hence there must by definition be a predetermined amount of electric power because signal is transmitted and received utilizing that predetermined minimum amount of electric power.

►And finally on a third point related to the second point of this subsection, the Appellant is respectfully attempting to quantify a predetermined amount of received driving electrical power to be only a singular predefined discrete amount of electrical power and the signal to confer only that this singular predefined discrete amount of electrical power has been stored, this definition however though argued by the Appellant is far beyond the scope of the presented claim. The presently argued claim limitation only requires a means for providing notification when the received energy reaches a predetermined threshold and the ability of the LC circuit to produce a response perceivable by the apparatus of Gilboa when arranged in the arrangement of Gilboa establishes just such a threshold.

"In fact, as can be seen at Gilboa col. 13, line 55, Gilboa's system separately determines the signal power from each piece. Applicants pose the following question to the Examiner --Why would that have to happen if all pieces had all reached the same "predetermined" quantity of electrical power?

Stated another way, each piece in Gilboa responds differently; this is not the same as Applicants' claimed invention, where each piece has to reach the "predetermined" quantity of electrical power, and notify the control unit after reaching this level of power." (Appellant's brief first and second full paragraphs on page 10)

This feature is simply not presented in the claimed invention as the claimed invention though presenting a plurality of game pieces in similar fashion to the prior art does not address charging all of the game pieces at a singular time. If the argued point is not supported by the limitations of the presented claims they cannot reasonably be relied upon to prove non-obviousness over the prior art with reliance on improperly incorporating limitations from the specification into the claims *In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).*

"In this appeal, the relevant functions are "notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power" (claim 1), and "means for providing a notification" (claim 6). None of the applied art teach or suggest these functions, either explicitly or implicitly." (Appellant's brief last full paragraph on page 10)

As discussed above these feature as broadly claimed and defined through with regards to the establishment of equivalence under 35 USC 112 sixth paragraph and their relevant correlation to the prior art as applied has been provided for above.

Specifically, the Examiner's position appears to be that, merely because the game pieces of Gilboa appear to transmit data to a control device, such transmissions necessarily provide notification "...that the received driving electric power has reached a predetermined quantity of electric power." While it may be true that Gilboa will not transmit if sufficient power has not been received, this is a completely different matter than providing an affirmative notification that the electric power has reached a predetermined quantity of electrical power, as claimed." (Appellant's brief paragraph bridging pages 12 and 13)

The simplest and most direct question here is "Why?". Why isn't a signal transmitted responsive to the receipt and storage of electrical power as presented by Gilboa the same as the following claim limitations?

"...means for notifying the first control device that the received driving electrical power has reached a predetermined quantity of electrical power;..." (Pending claim 1)

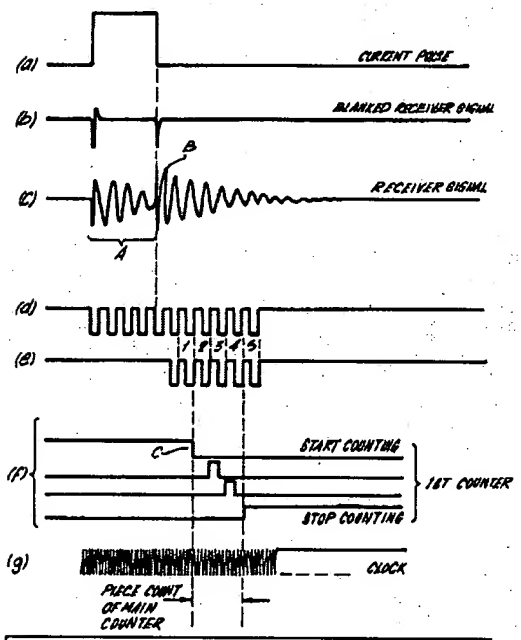
"...means for providing a notification that the received driving electrical power has reached a predetermined quantity of electrical power;..." (Pending claim 6)

There is no presented basis from which, one can suggest that the transmission of a signal is not an affirmative notification. Simply stated, the transmission of a signal by Gilboa is affirmative action take in response to a predefined situation and therefore is the same action set forth by the relevant claim limitation.

Respectfully, the Appellant has not demonstrated that they is a difference between the prior art as applied and their claimed invention for this feature. In fact the only difference between the claimed invention and the prior art would seem to be the interpretation of claim breadth presented by both the Appellant and the Examiner with regards to this matter as presented in greater detail above.

(2) The Appellant's alleges that motivation to combine is lacking because Gilboa teaches away (Appellant's brief pages 13-14).

The Combination as challenged by the Appellant is directed to the combination of a resonance circuit of Gilboa in further combination with a processor of Zalewski premised on the following arguments.



Blenkinshop Figure 3

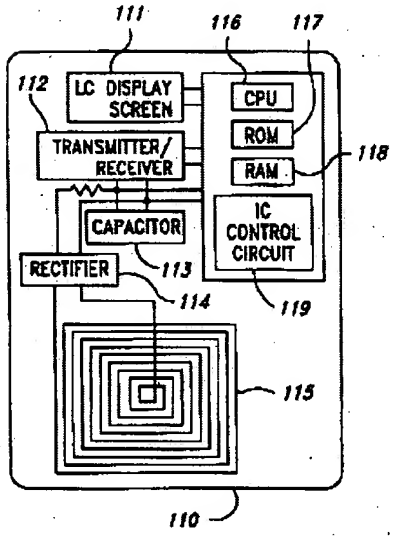
With respect to Gilboa's embodiment in FIG. 10 and col. 11, line 16 et seq., it appears that the Examiner is combining Gilboa's "no power" embodiment (i. e., where Gilboa uses a resonance circuit in lieu of a battery) with the other references to show a more advanced control unit. But without Gilboa's battery, there is no data transfer, and the system is incapable of working as Applicants have disclosed and claimed. (Appellant's brief last full paragraph on page 13)

It should be first noted that Gilboa does not teach an embodiment involving "no power" as alleged by the Appellant. Gilboa teaches two embodiments of his invention wherein the first embodiment includes a battery power source and

the second embodiment includes the use of a LC resonance circuit as a power source, the qualification as the resonance power source as a "no power" source is a mischaracterization of the teachings of Gilboa. On a second point the Appellant alleges that there is not data transfer with Gilboa's resonant powered circuit however this is in direct contradiction to the teachings of Blenkinshop incorporated by reference into Gilboa, wherein the frequency transmitted by the game piece of Blenkinshop to identify the type of gaming piece (Blenkinshop Page 3, Lines 53-56). Further one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, Applicants submit that the Examiner is mixing and matching incompatible elements from the reference, using impermissible hindsight to do so. In other words, this section of Gilboa clearly teaches away from using a battery source, which would be "implicitly" required to implement the teachings of Zalewski, which the Examiner offers as teaching using a memory.

The resonant circuit of Gilboa is submitted as not being capable of retaining sufficient energy to power a transmitter or memory, for example, because Gilboa's resonant circuit would immediately "collapse" and reradiate, given the underlying physics of RLC resonance phenomenon. (Appellant's brief first and second full paragraphs on page 13)



Takemoto Card of Figure 1

In contradiction to the Appellant's assertion, Examiner has not relied on the incorporation of a battery type power source and relied upon the inclusion of a resonant circuit to provide the necessary power for processor operation. However the Appellant appears to be further arguing that the presented combination would not

have an expectation of success. To rebut this point the Examiner notes the viability of this type of combination is well documented in the technology and may be further evidenced by, Takemoto USP 5,741,184, Carroll USP 4,857,893, and Andrews USP 5,099,226. For clarity these references are presented to provide objective evidence the combination as presented was both known and proven viable at the time of claimed invention and are not provided as a supplemental ground of rejection.

With regards to Appellant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(B) The Appellant challenges the Examiner's establishment of a prima *facie case* for Unpatentability of claims 8-9 and 12-14 over Gilboa, Zalewski, and Hikawa et al based on:

(1) The Appellant's alleges that prior art fails to teach or suggest all the claim limitations (Appellant's brief page 15).

The arguments of this section are solely based on the arguments of section (A) and therefore are addressed by the Examiner in the rebuttal of the Appellant's arguments of the same section as presented above.

(2) The Appellant's alleges that motivation to combine is lacking because Gilboa teaches away (Appellant's brief pages 15).

The arguments of this section are solely based on the arguments of section (A) and therefore are addressed by the Examiner in the rebuttal of the Appellant's arguments of the same section as presented above.

(B) The Appellant separately argues for patentability of dependent claims 39 and 40 through.

The Appellant argues the functional language limitation of claims 39, and 40 directed to the following claim limitation.

"...wherein, after receiving a notification that the received driving electric power has reached the predetermined quantity of electric power, the first control device interrupts a radio wave transmission for a predetermined period of time." (Appellant's claims 39 and 40).

It should be first noted that the Appellant is arguing intended use of an apparatus in attempt to distinguish the claimed invention from the prior art. However is in contradiction to MPEP 2114, and In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed Cir. 1997).

Further the construction of the argued claims reads "...wherein **after** receiving..." and not "in response to receiving" or any causality type relationship, and only defines a portion of a temporal relationship. Hence as shown in figure three of Blenkinshop incorporated herein *above* shows the transmission pulse A, which is terminated for a period of time during the transmission of the notification signal C.

Hence this point must fall on first improperly relying on functional language as a basis for novelty and a second point wherein even if one were to be a structural modification, this limitation as so claimed has been demonstrated by the prior art applied in the Examiner's rejection.

Examiner's Conclusion

The Examiner submits to the Honorable Board that the rejections of record are proper and fitting to the language of the claims as presented in view of the specification without the improper incorporation of limitations from the specification into the presented claims. Having reviewed the breadth of the claims, the factors of 112 sixth paragraph equivalence set forth by the MPEP, the art applied, and full rebutted the Appellant's challenges for patentability premised on a unduly narrow interpretation of the prior art, the Examiner has demonstrated that the rejection of record has been applied in manner that is reasonable, consistent, and reflective of claim interpretation as set forth by the MPEP and should be accordingly maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Robert Mosser Patent Examiner Technology Center 3700

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Xuan Thai Supervisory Patent Examiner Technology Center 3700

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